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ABSTRACT

Results are presented of a statewide survey of visually impaired children and youth (birth to age 21) who were receiving or could qualify to receive special educational or other services in Mississippi. Questionnaires were completed on visually impaired students from four programs: public schools, private schools, state schools for the blind, and state residential schools for the mentally retarded. Demographic patterns are analyzed (age, sex, ethnic backgrounds), and results are also provided for distribution by type of special program, causes of visual loss, age of onset of visual loss, additional handicaps, year of last visual examination, prognosis of visual conditions, mode of reading, and visual acuity in the better eye after correction. The survey instrument is appended. (CL)

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Mississippi State Survey of Visually Impaired Children and Youth 1984-85

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PREFACE

The Governor's mandate for a Mississippi Statewide Comprehensive Plan for the Education of Blind and Visually Handicapped Children required a statewide data base on visually impaired children and youth. Demographic information and other educationally related characteristices of this population are vital if this effort at statewide planning is to be most successful.

The information contained within these pages provided invaluable assistance for evaluation and planning, and to aid in the development of a blueprint for the future development of most appropriate services for visually impaired children including blind and deaf-blind students. While this report is a present resource for data based planning of special educational services, it also provides some parameters for the future direction of these services to the visually impaired children and youth of the state.

ACKNOWLEDGEMENTS

The Statewide Study of the Education of Blind and Visually Handicapped Children of which this report is one product, is the work of a large number of people in Mississippi. It is impossible to mention all the individuals who assisted in this survey.

However, special thanks are due Ms. Gayera Trabont, Principal, Mississippi School for the Blind, Mr. Herman White, Consultant for Special Education Services of the Mississippi State Department of Education, and Dr. Jimmy Cotten, of the Addie McBryde Rehabilitation Center for the Blind. Also, Mr. Paul Skjoldager, a doctoral student in psychology, was kind enough to develop a program package for computer processing of this survey.

Appreciation is expressed to many individuals whose efforts in providing the survey with accurate information enabling this data to become an instrument for the planning of educational and related services to visually impaired children in Mississippi. Finally, this report truly represents yet another example of the efforts of members of the Mississippi Statewide Planning Project for the Education of Blind and Visually Handicapped Children.

Mississippi State Survey of Visually Impaired Children and Youth
1984-85

Introduction

This first State Survey of Visually Impaired Children and Youth was conducted during the Fall of 1984 by the University of Mississippi's Research and Training Center for the Handicapped on behalf of the Statewide Comprehensive Plan for the Education of Blind and Visually Handicapped Children. This survey will be used to provide a statewide data base on visually impaired students to be used for the statewide planning project. The starting point for the survey was the assumption that a "blueprint for the future" for the educational and related services could be greatly enhanced by throughly understanding the characteristics of students in relation to the special educational services they receive.

Information on educationally relevant characteristics are presented in order to portray from a statwide perspective the group of visually impaired children and youth in Mississippi who are currently receiving or are eligible to receive special educational services. This report presents an analysis of items from the survey; other surveys have also been conducted and will be the subject of other reports.

Specific Goal

The "Survey of visually impaired children and youth" was a statewide survey of children (birth to 21 years) who were receiving, or could qualify to receive, special educational or other services because of a visual condition, or because of multi-handicapping conditions which include severe vision loss.

The goal of the survey was to develop information which would provide answers to questions in three broad research areas:

1. What are the current causes of visual impairment and their geographic distribution?
2. What are the number and characteristics of multi-handicapped visually impaired children, and the nature of their handicaps?
3. What characteristics of visually handicapped children i.e. age at onset of visual loss, current visual status, other physical/mental conditions, age, and ethnic minority status, are related to elements of the special education programs serving them?

Prior National Surveys and their limitations

A literature search was made of existing national surveys; subsequently, this Mississippi survey was conceived out of frustration. Attempts to secure adequate information from these national surveys and apply various weighting factors to arrive at necessary data for the Mississippi Statewide Planning Porject proved inadequate and unproductive. Therefore, it was necessary and essential to complete this carefully developed local survey for Mississippi.

However, the five major national surveys generally used in this country are briefly reviewed for the reader:

The American Printing House for the Blind conducts an annual registration of legally blind students (children and adults) in less than college level educational programs, regardless of where they are enrolled, for the Federal Quota Program under "The Act to Promote Education of the Blind." Data are collected for each student on visual acuity, grade level, primary reading medium, and the school system in which enrolled. It does not include information on the cause of the vision impairment, age, sex, or types of service being received.

The Office of Special Education and Rehabilitation, U. S. Department of Education, collects annual federally mandated reports from state education agencies on the number of visually handicapped children receiving services in programs operated by local education agencies and state-operated programs. Reporting is not limited to the legally blind. Handicapped children are defined functionally, i.e. in terms of need for special education as determined by professional evaluation. Definitions of handicapping conditions and classification of children in reporting systems vary from state to state. It is not known how many in the multi-handicapped category are visually handicapped. There is no reporting of cause or severity of the visual impairment and only one category is used "Visually Handicapped" and can mean total blindness to a minor visual loss.

The National Society to Prevent Blindness conducted annual studies of legally blind school childrento determine the prevalence, incidence and significant causesof blindness from the early 1930's through the 1968-69 school year. Participation of schools in these studies was on a voluntary basis, therefore these studies did not have complete coverage. After an interval of 10 years another study was done for the 1968-69 school year to assess any changes that might have taken place in causes and prevalence rates. It was based on a 20% sample of school children on the American Printing House registration lists. Data were

used in developing NSPB estimates of prevalence and incidence rates for the legally blind population in U.S. and distributions by age, visual acuity, and cause.

Health Interview Survey, National Center for Health Statistics, provides estimates of the number of noninstitutionalized children under age 17 with severe visual impairments, i.e. inability to read ordinary newsprint even with the aid of glasses. These are based on self-reports or, in many cases, proxy reports of visual ability of members of a representative sample of households rather than ophthalmic measures of visual acuity or a professional assessment of functional visual ability.

The National Health and Nutrition Examination Survey, National Center for Health Statistics, estimates of the number of children age 4 to 17 years reaching specified visual acuity levels, e.g. 20/200, 20/70, for distance in the better eye. These are based on examinations of a small sample of individuals and therefore subject to a large sampling error.

It was apparent that more adequate and comprehensive data was needed to assess the characteristics of visually handicapped children in Mississippi.

Methodology

Questionnaire Development

The development of the survey instrument was a joint effort by personnel of the Mississippi School for the Blind, Mississippi State Department of Education and Task Force Members of the Mississippi Statewide Planning Project of the Education of Visually Impaired Children. The questionnaire was based on the particular needs for information to assess severe visual impairment of children within Mississippi. The survey instrument is attached in Appendix A.

Chronology of the Survey

Identification of the schools and programs in Mississippi serving visually impaired children and youth was a first necessary step in the survey. This was accomplished with the assistance of various personnel mentioned above. Subsequently, questionnaires were completed on visually impaired students from the following four programs:

1. public schools,
2. private schools,
3. Mississippi School for the Blind, and
4. state residential schools for the mentally retarded.

Questionnaires were completed on every child at the Mississippi School for the Blind, and state schools for the mentally retarded. All known public and private school children were also included in this survey if their visual impairment was severe enough and was reported.

Data Processing

The completed questionnaires were processed by the University of Mississippi Research and Training Center Staff using the UM computer system. The data were entered directly onto computer disk via terminals using a program designed specifically for this survey and tabulated by means of this program package.

Mississippi Student Data File

A small majority of the students surveyed, 54.6% were male, a percentage fairly typical of other data on handicapped children. This contrasts somewhat with the population at large, in which females slightly outnumber males.

Table 1: Sex Distribution

	Frequency	Percent
Male	251	54.6
Female	195	42.4
Not Reported	14	3.0
Total	460	100.0

The pattern of the age distribution suggest progressive likelihood of entry into special education enrollment after age six and a decline in special education enrollment after age 18. To what degree these trends reflect specific special education services patterns or population differences among the age cohorts remains to be determined.

Table 2: Age Distribution for Visually Impaired Students in Mississippi 1984-85

Age	Frequency
1	7
2	2
3	5
4	7
5	8
6	9
7	22

Continued

Age	Frequency
8	24
9	25
10	39
11	28
12	39
13	26
14	34
15	27
16	26
17	24
18	29
19	20
20	16
21+	9
Not Reported	32

The ethnic backgrounds of Mississippi students are summarized in Table 3. The most notable aspect of the table is that 44.6% of visually impaired students statewide were black. Students of hispanic origin in Mississippi represented less than one percent of those reported to the survey.

Table 3: Ethnic Backgrounds of Visually Impaired Students in Mississippi 1984-85

	N	Percent
White	215	46.7
Black	205	44.6
Hispanic	1	.2
Not Reported	39	6.5
Total	460	100.0

Table 4 shows the 460 students reported to Mississippi Survey according to the type of special education programs in which they were enrolled during the 1984-85 school year. A majority of students(58%)attend public schools grades 1-12. The next most common type of placement for the students was the Mississippi School for the Blind (25.9%). However, a sizeable number of studentswith mental retardation attended, on a full-time basis, the states'residential schools for the retarded (14.1%).

In some counties, the visually impaired attend local public schools while in others children attend the Mississippi School for the Blind. This diversity may be attributable partly to local school philosophies and resources.

Table 4: Distribution of Visually Impaired Students in Mississippi by Type of Special Education Program, 1984-85

Type of Program	N	Percent
Ms. School for the Blind	119	25.9
State Schools for the Retarded	65	14.1
Public Preschool	5	1.1
Public Schools-grades 1-12	267	58.0
Not Reported	4	.9
Total	460	100.0

Table 5 lists the probable causes of visual loss among students reported to the Mississippi Survey. The determination was made on the basis of authoritative ophthalmological opinion as to the probable origin of the particular condition. Nystagmus and cataracts are the two largest reported causes of visual loss. Retrolental fibroplasia, poisoning from excessive oxygen at birth, still accounted for 24 cases of visual impairment among the students. More adequate diagnoses and reporting are needed; unfortunately, many of these children are seen too late to establish a reliable diagnosis.

Table 5: Causes of Visual Loss Among Visually Impaired Students in Mississippi, 1984-85

Causes	N
Cataracts	88
Glaucoma	26
Maternal Rubella	13
Retrolental Fibroplasia	24
Optic Nerve Atrophy	45
Albinism	28
Nystagmus	121
Retinitis Pigmentosa	13
Macular Degeneration	9
Retinal Degeneration	8

Continued

Causes	N
Amblyopia	21
Severe Myopia	44
Microphthalmia	9
Birth Defect	8
Retinoblastoma	4
Congenital Toxoplasmosis	3
Other	21

For the vast majority of Mississippi's visually impaired students in special education, the age at onset of visual loss was at birth. Only 24 students for whom this information was provided had reported onsets after the age of 3. (See Table 6)

Table 6: Age of Onset of Visual Loss for Visually Impaired Students in Mississippi 1984-85

Age	N
At Birth	326
After Birth through 3 years	24
4 years through 10 years	19
After 10 years	5
Not Reported	66

A number of visually impaired students represented in the Mississippi Survey were reported to have at least one other significant handicap. Table 7 shows the number of various handicappping conditions. The handicap most often reported was mental retardation(68%), a reflection of the significant participation in this project by programs serving multiply handicapped students.

It was possible on the survey form to report more than one additional handicap for each student and some students were reported to have two or more additional handicapping conditions.

Table 7: Other Handicapping Conditions

Brain Damaged	20
Epilepsy	20
Orthopedic	10
Cerebral Palsy	18
Heart Disorders	12
Deaf-Blind	39

Continued

Mental Retardation	68
Behavioral Impairment	8
Deaf	4
Motor Problems	3
Microcephaly	5
Other	6

It is observed that for 119 students, the reported visual evaluation was prior to 1980. All but for 41 students the visual evaluation was made more than 12 months previously.

It is generally an accepted feeling on the part of professional personnel engaged in work with visually impaired children that the visual status of the child should be re-evaluated every six months and surely no less than once every twelve months. These findings indicate a possibility that greater attention needs to be paid to the frequency of visual evaluation.

Table 8: Year of Last Visual Examination

1984	41
83	94
82	84
81	67
80	37
Prior to 1980	119

It is observed that prognosis is stable or stationary in the case of 279 (60.7 percent) students. It is estimated the improvement can be expected in 10 (2.2 percent), while deterioration is anticipated in 32 (7.0 percent).

The information in Table 9 needs to be considered and interpreted in terms of the information included in Table 8 regarding the date of visual evaluation. Obviously, current information on prognosis cannot be available when visual examinations are not up to date.

Table 9: Prognosis of Visual Conditions

	N	Percent
Stable	279	60.7
Deteriorating	32	7.0

Continued

	N	Percent
Uncertain	56	12.2
Improvable	10	2.2
Not Reported	82	17.8

In Table 10 it is noted that large print is the chief mode of reading among the students. Future analysis of this data will compare discrepancies in modes of reading between public and residential school students with similar degrees of remaining vision. However, it is possible that selective factors which determine the placement of children may account for any differences. Another question to be answered is why do many students who read braille see as well as many others who read print?

Table 10: Mode of Reading

	N
Braille	65
Large Print	273
Nonreader or Not in school	79

In Table 11, it should be noted that the visual acuity was recorded in the better eye after best correction by the examining eye practioner. Standard definitions and recording practices were used in the large majority of cases; however, this was not true in some instances. Therefore, the mass of resultant data is included in Table 11 with limited interpretation.

It was noted that in 24 instances the eye doctor was unable to measure or determine the visual acuity. In many such instances, this information was on the records of severely retarded students and probably reflected a communications barrier.

Table 11: Visual Acuity in the Better Eye After Correction

Totally Blind	46
Light Perception-Hand Movement	74
Count Fingers	25
5/200 to Count Fingers	9
20/400 to 5/200	9

Continued

20/200	107
20/70 to 20/200	58
Better than 20/70	39
Blind	11
Less than 20/200	3
Unable to measure or determine	24
Not available or given	14

Mississippi Survey Data: A Look Forward

The preceeding sections do not, of course, constitute a complete description of the data file from the Mississippi Survey, nor does this report begin to exhaust the rich possibilities for further analyses. Rather, the description are intended to convey important characteristics of this group of visually impaired students in Mississippi.

A more detailed analysis of this survey data will be made in the near future. Also other educationally relevant surveys are presently underway and should provide a data base of immeasurable benefit for special educational planning for visually impaired children in Mississippi.

APPENDIX A

MISSISSIPPI SURVEY OF VISUALLY HANDICAPPED CHILDREN AND YOUTH
(Birth-21 years of age)

*Confidential: All information which would permit identification of any individual or institution will be held strictly confidential and will be used for authorized purposes. This data will not be disclosed to others for any reason.

1. Student Identification Number:

   _____

2. Date of Birth:

   _____
   Month, Day, Year

3. Sex: _____Male _____Female

4. Present School or Agency:

   _____
   Name of School or Agency

   _____
   City

5. Ethnic Background:
   _____White _____Black
   _____Other (Specify)_____

6. Cause of visual loss:
   _____Cataracts
   _____Glaucoma
   _____Diabetes
   _____Maternal Rubella
   _____Retrolental Fibroplasia (RLF)
   _____Optic Nerve Atrophy
   _____Albinism
   _____Nystagmus
   _____Retinitis Pigmentosa
   _____Macular Degeneration
   _____Retinal Degeneration
   _____Amblyopia
   _____Other heredity (specify)
   _____
   _____Injury or accident
   _____Other (specify)
   _____

7. What is the prognosis of visual impairment?
   _____Stable _____Deteriorating
   _____Uncertain _____Improvable

8. Degree of visual loss:
   a. Date tested:

Month	J	F	M	A	M	J	J	A	S	O	N	D
Year		81		82		83		84				

   Other (specify)_____

   b.

EYE	VISION	PREVIOUS	NEW OR CURRENT
RIGHT O.D.	DISTANT		
	NEAR		
LEFT O.S.	DISTANT		
	NEAR		
BOTH O.U.	DISTANT		
	NEAR		

   c. Field of Vision:
   Right eye (O.D.)
   ____Normal ____Restricted ____Data not available
   Left eye (O.S.)
   ____Normal ____Restricted ____Data not available

   d. Does student wear corrective glasses or contact lenses in at least one eye?
   _____Yes _____No _____Data not available

*Under the Family Education Rights and Privacy Act of 1974 as amended, "prior consent for disclosure is not required for organizations conducting studies for, or on behalf of educational agencies or institutions for the purpose of. . . . imporoving instructions, etc." (Federal Register, Vol. 41, No. 118, Thursday, June 17, 1976, p. 24673.)

9. Age at onset of visual loss:_____

10. Is this child counted for federal funds?
_____94-142 ____89-313
_____Other-Number_____

11. Is there additional educationally handicapping conditions other than visual impairment?
_____Yes _____No
If yes, mark all educationally significant additional handicaps.
_____Brain Damage or Injury
_____Epilepsy (Convulsions Disorders)
_____Orthopedic
_____Cerebral Palsy
_____Heart Disorder
_____Deaf-Blind
_____Mental Retardation
_____Behaviorally Impaired
_____Specific Learning Disablities
_____Deaf
_____Other (specify)_____
_____

12. What are student's usual reading modes in school? (Mark all that apply.)
_____Not applicable-Student non-reader or not in school
_____Braille
_____Large print
_____Recorded Materials
_____Regular print
_____Other (specify)_____
_____

13. Is this person currently listed on the Regional or National Deaf/Blind Registery?
_____Yes _____No

14. Other information?
_____
_____
_____
_____
_____